

What is claimed is:

1. A method of recording field data to facilitate the creation of a contour map using a handheld GPS receiver comprising the steps of:  
setting up a grid network;  
5 entering data as GPS waypoints;  
entering data as GIS point feature descriptions;  
uploading the GPS waypoints and the GIS description to the GIS.
2. The method of claim 1, wherein the GPS waypoints and the GIS  
10 descriptions are entered in an evenly spaced grid.
3. The method of claim 1, wherein the grid network is an array of waypoints oriented in rows and columns.
- 15 4. The method of claim 1, wherein data includes visual observations and measurements made by field sensors.
5. The method of claim 4, wherein the field sensors include depth sounders, chemical detectors, magnetometers, thermometers and hydrometers.  
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6. The method of claim 1, wherein said GPS waypoints are one of a point, line and area.
7. The method of claim 1, wherein said GIS waypoints are one of a  
25 point, line and area.
8. The method of claim 1, wherein said grid network is set up either on the GPS receiver or on a PC-type computer.

9. The method of claim 2, wherein said evenly spaced grid points can be adjusted in both vertical and horizontal directions.

5 10. The method of claim 2, comprising adjusting said grid in size.

11. The method of claim 2, comprising reorienting said grid.

12. The method of claim 1, comprising navigating to a first waypoint before performing said entering steps.  
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13. The method of claim 1, wherein each entered GPS waypoint is assigned GIS feature attributes.

14. The method of claim 1, comprising uploading the grid network  
15 from a PC-type computer to said handheld GPS receiver.

15. A method of creating a grid map on a computer to be used by a handheld GPS device, comprising steps of:  
setting up an evenly spaced grid including uniformly spaced points oriented in  
20 rows and columns;  
inputting grid points to be used by a user using the handheld GPS device to perform measurements or observations.

16. The method of claim 15, wherein data includes measurements  
25 made by field sensors.

17. The method of claim 16, wherein the field sensors include depth sounders, chemical detectors, magnetometers, thermometers and hydrometers.

18. The method of claim 15, wherein said grid points are one of a point, line and area.

19. The method of claim 15, which said evenly spaced grid points can  
5 be adjusted in both vertical and horizontal directions.

20. The method of claim 15, comprising adjusting said grid in size.

21. A method of entering data from a handheld GPS device into a grid  
10 network on the handheld GPS device, the grid network created on a PC-type computer, comprising the steps of:

entering feature data on grid features; and

entering feature data on grid points.